



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

BULLETIN
OF THE
TORREY BOTANICAL CLUB.

Vol. XVII.] New York, April 10, 1890. [No. 4.

Contributions to Canadian Bryology.—No. 2.

By JOHN MACOUN.

(Continued from Vol. xvi. 98).

LIST OF MOSSES COLLECTED IN BRITISH COLUMBIA AND THE ROCKY MOUNTAINS
DURING THE SUMMERS OF 1885-'87-'89.

Determinations and descriptions of new species by DR. NILS CONRAD KINDBERG,
Linköping, Sweden.

Andræa petrophila, Ehrh. Not uncommon on rocks on the
Gold Range, B. C. and Mounts Benson and Arrowsmith,
Vancouver Islands.

A. Huntii, Limpr. On rocks on Mount Benson, near Nanaimo,
Vancouver Island, June 8, 1887.

ANDRÆA MACOUNII, Kindb. (n. sp.).

Stem elongate, about 5 cm. high. Tufts dark brown. Leaves narrow, from the broader base long-acuminate, distinctly papillose, more or less denticulate, sometimes to the middle, more or less curved, the uppermost falcate; cells uniform, sub-quadrate; costa narrow, sometimes in the uppermost leaves excurrent.

No. 382—A lovely species of a rich dark brown or brick-red color growing in great profusion on sloping rocks by small rivulets at an altitude of 6,700 feet on the Gold Range, north of Grif-fin Lake, British Columbia, August 8, 1889.

Gymnostomum curvirostrum, Hedw. On limestone rocks around springs and by waterfalls, Peace River, Rocky Mtns., Lat. 56°.

GYMNOSTOMUM (Hymenostylium) PLATYPHYLLUM, Kindb.
(n. sp.).

Dioecious. Plants green, not glossy. Stem not papillose, sparingly radiculose, leaves decurrent, distinctly papillose, short, obtuse, oblong-lanceolate, the comal greater, one border recurved often all around; costa greenish-yellow, very papillose.

Collected on the face of a small water-fall in the brook that flows into the Thompson, just west of Kamloops, less than half a mile south of the C. P. Ry., June 16, 1889.

Weissia viridula, Brid. On earth at Morley, Rocky Mountains.

Dicranoweissia crispula, Lindb. On large boulders Cathedral Mountain, Rocky Mountains.

D. cirrhata, Lindb. Abundant on logs and stones on Vancouver Island and at Hastings, B. C.

Cynodontium polycarpum, Schimp. Common on rocks in the mountains of Vancouver Island, North Arm of Burrad Inlet, B. C.

C. strumiferum, De Not. (*C. polycarpum*, Schimp., var. *strumiferum*, Lesq. and James, 69.) On rocks on the summit of Mount Benson, Vancouver Island.

C. virens, Schimp. Abundant on wet rocks, Kicking Horse Lake, Rocky Mountains, and on the summit of the Gold Range, B. C.

Var. *serratum*, Bruch and Schimp. In wet gravel along mountain streams at Griffin Lake and North Thompson River, B. C.

C. Wahlenbergii, C. Haertm. On the mountains north of Griffin Lake, Gold Range, B. C.

Dichodontium flavescens, Lindb. (*D. pellucidum*, var. *serratum*, Lesq. and James, p. 62.) Wet rocks, Comox, Vancouver Island; on wet sandstone rocks in a railroad cutting at Hastings, Burrad Inlet, B. C.

D. pellucidum, Schimp. In gravel in the bed of Eagle River, Griffin Lake, and in Blackwater River, B. C.

Trematodon ambiguus, Hornsch. On wet loam at Craigallachie, Eagle River, B. C.

Angstræmia longipes, Bruch and Schimp. On wet sand in the bed of Six Mile Creek, Selkirk Mountains, B. C.

- Dicranella crispa*, Schimp. On turned up stumps, Beaver Creek, Selkirk Mountains, also McLeod's Lake, Lat. 55°, B. C.
- D. Grevilleana*, Schimp. On earth, dry bed of Six Mile Creek, Selkirk Mountains, B. C.
- D. Schuberi*, Schimp. In limestone springs, Lake Mara, Sicamous, and summit of Gold Range, B. C.
- D. varia*, Schimp. Common on mud banks along the Athabasca River at Fort Assiniboine.
- D. parvula*, Kindb. Bull. Torr. Bot. Club, xvi. p. 91. On earth, on the mountains north of Kicking Horse Lake, Rocky Mountains, alt. 7,500 feet, 21st July, 1885.
- D. rufescens*, Schimp. On wet sandstone rocks in a cutting at Hastings and by a brook at Yale, B. C.
- D. heteromalla*, Schimp. On turned up stumps, and loamy earth in woods, B. C.; common.
- Dicranum Starkii*, Web. and Mohr. Common on Mounts Benson, Mark and Arrowsmith, Vancouver Island; also on the Gold Range, Griffin Lake, B. C.; alt. 7,000 feet.
- D. Blyttii*, Bruch and Schimp. On steep rocks, Mount Benson, Vancouver Island, and on rocks at Sicamous, B. C.
- D. strictum*, Schleich. On rotten logs in woods, Vancouver Island; abundant at Hastings, Agassiz and Yale, B. C.; and Peace River, Lat. 56°.
- D. viride*, Schimp, var. GROSIFERUM, Kindb. n. var.
On the base of trees at Agassiz, B. C., May 19, 1889.
- D. flagellare*, Hedw. On old logs at Sicamous, B. C.
- D. albicans*, Bruch and Schimp. In crevices of rocks, on the summit of the Gold Range, at Griffin Lake, B. C.; alt. 7,000 feet.
- D. congestum*, Brid. (*D. fuscescens*, Lesq. and James in part, 72.) Common on earth in woods at Hastings, Agassiz, Yale and Sicamous, B. C.; also at Morley, Rocky Mountains.
- D. fuscescens*, Turn. On logs in the Rocky and Selkirk Mountains; also Gold Range, B. C.; and at Cameron Lake, Vancouver Island.
- D. elongatum*, Schwaegr. On earth near Victoria, Vancouver Island; also in woods, Peace River.

- D. Muhlenbeckii*, Bruch and Schimp. On rocks, Mount Queest, Shuswap Lake, Cache Creek, and Blackwater River, B. C.
- D. rhabdocarpum*, Sulliv. On damp rocks, Lake Mara, Sicamous, B. C.
- D. fragilifolium*, Lindb. On logs near Victoria, Vancouver Island; also at Yale, B. C.; Little Slave Lake, Lat. 55°.

D. ANGUSTIFOLIUM, Kindb. (n. sp.).

Stem about 5 cm. high, radiculose. Leaves shining, subuliform, not undulate, very narrow, 1-5 cm. long, denticulate to $\frac{1}{3}$ or from the middle upward, not crispate, brittle, straight or patent; cells very porose and narrow; outer alar cells brown, inner hyaline; costa smooth at the back, faint and very narrow (about $\frac{1}{10}$ of the leaf near the base) scarcely excurrent. Capsul straight, long-beaked. Allied to *D. subulifolium*, but differing in the longer leaves, longer leaf-cells and doubly narrower, not excurrent costa. On logs and damp rocks, frequent in British Columbia from the coast to the Gold Range, 1889.

- D. scoparium*, Hedw. Not uncommon on logs in the Rocky Mountains and westward.
- Var. *scopariforme*, Kindb., Bull. Torr. Bot. Club, xvi. 92. Buffalo Lake, Athabasca; also in the Gold Range, B. C.
- D. majus*, Turn. On logs, near Victoria, Vancouver Island.
- D. palustre*, Bruch and Schimp. On damp rocks, North Arm, Burrad Inlet, B. C.

SUB-SP. COLUMBIÆ, Kindb.

Cæspitose, tomentose and yellowish green. Leaves open-erect, undulate above, ovate-lanceolate, obtuse or short-acute, serrate at the back and on the borders above; the uppermost cells oblong, the others linear, except the quadrate ones at the angles; costa narrower, disappearing below the apex. Capsule solitary, narrow-cylindric, curved, striate, pale brown, not strumose; beak as long as the capsule; pedicel yellow. Dioecious.

Differs from the true *D. Bonjeani*, De Not. (*D. palustre*, Schimp.) principally in the leaves being blunt, serrate below the middle, the costa serrate also below the middle and the capsule without a neck. Damp woods by the borders of ponds, Cedar Hill, near Victoria, Vancouver Island; and on Cache Creek Mountains, B. C. Alt. 2500 feet, May 25, 1875.

D. CANADENSE, Kindb. n. sp.

Size robust; habit of *D. majus* or *D. Drummondii*. Stem radiculose. Leaves indistinctly undulate, long-acuminate, denticulate at the acumen; inner basal cells hyaline, the alar orange, the other cells sublinear and porose; costa smooth or slightly rough, not excurrent, broad at the base, narrow above. Capsule short-beaked, curved, finally costate and blackish.

On rotten logs at Moodyville, Burrad Inlet, B. C. April 29, 1889.

D. SULCATUM, Kindb. n. sp.

Intermediate between *D. fuscescens* and *D. congestum* but the leaves are still narrower. Stems very tomentose. Leaves slightly twisted, only the upper curved, denticulate from the middle upward, ovate-lanceolate, gradually narrowed into a long setaceous point; cells porose, the lower long, the upper short; costa long-excurrent, broad, one-fifth of the leaf near the base. Capsule curved, furrowed when dry, substrumose; peristome dark red.

On the ground and on logs at Victoria, Vancouver Island, 1887; quite common between Burrad Inlet and the Gold Range, B. C. 1889.

D. SUBULIFOLIUM, Kindb. n. sp.

Stems low, 2-3 cm. high, not, or sparingly radiculose. Leaves yellowish, patent, scarcely brittle, very narrow and sub-setaceous, the subula denticulate above; cells narrow, porose; costa about one-sixth of the leaf in length, smooth at the back, often excurrent. Capsule small, straight and cylindric; seta yellow.

On old logs, in woods at Cedar Hill, near Victoria, Vancouver Island, April, 1887.

Fissidens limbatus, Sulliv. On clay banks along an old road at Comox, Vancouver Island.

F. minutulus, Sulliv. On earth at Comox, Vancouver Island.

F. tamarindifolius, Brid. On the base of trees subject to inundation, Eagle River Valley at Sicamous, B. C. August 7, 1889. New to America.

F. osmundoides, Hedw. On earth in woods at Sicamous, B. C.

Ceratodon purpureus, Brid. Common in all suitable places.

Var. *xanthopus*, Sulliv. Not uncommon on rocks, near Victoria, Vancouver Island.

- C. minus*, Aust. On moist soil near Victoria, and at Comox, Vancouver Island; west of Frazer River, at Quesnel, B. C.
- C. conicus*, Hampe. On the base of a stump in dry open woods, near Spence's Bridge, B. C. May 29, 1889. New to America.
- Trichodon cylindricus* (Hedw.), Schimp. Along ditches at Victoria, Vancouver Island; also at Hastings, B. C. in some localities.
- Distichium capillaceum* (Hedw.), Bruch and Schimp. Crevices of damp Rocks, Rocky Mountains and Gold Range, B. C.; also Mount Arrowsmith, Vancouver Island.
- D. inclinatum* (Hedw.), Bruch and Schimp. Damp crevices of rocks, Peace River. Lat. $56^{\circ} 16'$.
- Blindia acuta* (Hedw.), Bruch and Schimp. var. *flexipes*, Ren. and Card. Along the Nanaimo River, Vancouver Island; on rocks in a mountain torrent at Yale, and along the Bonaparte River, B. C.
- Poltia cavifolia*, Ehrh. On dry earth on the west side of the Thompson River at Lytton, B. C.
- P. intermedia*, Turn. On earth at Yale and Cache Creek. B. C.
- Didymodon rubellus*, Bruch and Schimp. Crevices of rocks, Bow River Pass, Rocky Mountains, and at Spence's Bridge and Lytton, B. C.
- Leptotrichum flexicaule*, Hampe. Wet rocks Peace River Canon, Lat. 56° ; Kicking Horse Lake, Rocky Mountains; shore of Lake Mara, Sicamous, B. C.
- Var. *densum*, Schimp. Calcareous rocks at Morley, Rocky Mountains and in the Columbia Valley at Donald, B. C.
- L. glaucescens*, Hampe. On the bank of a creek at Sicamous; and on the summit of Mount Queest, Gold Range, B. C.
- Desmatodon latifolius*, Brid. On earth Blackwater River; and on Mount Queest, and mountains north of Griffin Lake, Gold Range, B. C. Alt. 6,500 feet.
- D. cernuus*, Bruch and Schimp. On wet rocks in a ravine at Kamloops, and on earth at Cache Creek, B. C.
- Barbula brevirostris*, Bruch and Schimp. On earth under Douglas Fir, at Morley, Rocky Mountains.
- B. rigida*, Schultz. On rocks Rocky Mountains Canon, Lat. 56°

- B. ambigua*, Bruch and Schimp. On calcareous earth at Quesnel, B. C.
- B. unguiculata*, Hedw. On earth along the Frazer River at Port Henry, B. C.
- B. fallax*, Hedw. On wet earth in a ditch at Comox, Vancouver Island.
- B. rigidula*, Schimp. On earth by a brook at Lytton, B. C.
- B. rubiginosa*, Mitt. Quite common on rocks at Cedar Hill and Comox, Vancouver Island, and on Mount Erskine, Salt Spring Island.
- B. flexifolia*, Hampe. Quite common on damp earth along the southern coast of Vancouver Island; also at Burrad Inlet, B. C.
- B. virescens*, Lesq. On rocks at Agassiz and Sicamous, B. C.
- B. cylindrica*, Schimp. Very abundant on rocks subject to inundation along the Frazer River from Hope to Lytton, B. C.
- B. gracilis*, Schwaegr. On rocks subject to inundation, Peace River Canon, Lat. 56° and at Yale in B. C., in same situation.
VAR. *SQUARRULOSA*, Kindb. n. var.
Leaves squarrose, distinctly papillose, faintly reflexed at the base, flat or canaliculate above.
On rocks subject to inundation at Yale, B. C. This was sent to Austin in 1875 and referred doubtfully by him to *B. gracilis*.
- B. convoluta*, Hedw. By the roadside at Comox, Vancouver Island.
- B. tortuosa*, Web and Mohr. On rocks, Kicking Horse Lake, Rocky Mountains; on Mount Queest, Gold Range, and at Sicamous, B. C.; Mount Arrowsmith, Vancouver Island.
- B. subulata*, Beauv., var. *LONGIFOLIA*, Kindb. n. var.
Intermediate between *B. subulata* and *B. angustata*. Leaves long and narrow, acuminate and acute, distinctly denticulate above, papillose, yellow, bordered; costa long-excurrent, but shorter in the perichaetial leaves.
Not uncommon on the base of trees near Victoria, Vancouver Island and on rocks at Yale, B. C.
- B. angustata*, Wils. On rocks at Morley, Bow River Pass, Rocky Mountains; abundant on earth along brooks at Spence's Bridge, Lytton and Agassiz, B. C.; new to North America.
- B. laevipila*, Bruch & Schimp. On the base of trees, Cedar Hill, near Victoria, Vancouver Island.

- B. alpina*, Bruch & Schimp. On rocks within the Rocky Mountains, Bow River Pass. Lat. 56° . New to North America.
- B. ruralis*, Hedw. Dry rocks, Kananaskis River, Rocky Mountains; also at Victoria, Vancouver Island.
- Var. *ruraliformis*, Besch. On a sand spit at Comox, Vancouver Island; also at Lytton, B. C.
- B. aciphylla*, Bruch & Schimp. On rocks, summit of Mount Queest and mountains north of Griffin Lake, Gold Range, B. C.; Alt. 6,500 feet. New to North America.
- B. megalocarpa*, Kindb. Bull. Torr. Bot. Club, xvi. 92.
On rocks at Cadbow Bay near Victoria, Vancouver Island; also abundant at Yale, Agassiz and Sicamous, B. C.
- B. Muelleri*, Bruch & Schimp. On rocks near Victoria, Vancouver Island; also at Yale and Lytton, B. C.
- Grimmia conferta*, Funk. On dry rocks, Mount Queest, Gold Range, at Lytton and Blackwater River, B. C.
- G. apocarpa*, Hedw. On dry rocks, Morley, Rocky Mountains and at Kamloops, B. C.
- Var. *gracilis*, Nees. & Hornsch. Quite common on precipices and faces of steep rocks at Moodyville, Agassiz and Sicamous, B. C.; also at Kananaskis, Rocky Mountains.
- Var. *rivularis*, Nees. & Hornsch. On stones in Cornwallis River, Comox, Vancouver Island; also in the Bow River, Kananaskis Falls, Rocky Mountains.
- G. platyphylla*, Mitt. On rocks along Peace River. Lat. $56^{\circ} 25'$.
- G. maritima*, Turn. On rocks exposed to the spray of the sea, Vesuvius Bay, Salt Spring Island, Gulf of Georgia; also on rocks at Hastings, Burrad Inlet, B. C.
- G. anodon*, Bruch & Schimp. On dry rocks at Morley, Rocky Mountains; and at Lytton, B. C.
- G. plagiopodia*, Hedw. On sandstone rocks along Peace River. Lat. $56^{\circ} 25'$.
- G. pulvinata*, Smith. On rocks, Mount Erskine, Salt Spring Island, Gulf of Georgia; common at Lytton and Blackwater River, B. C.

(To be continued.)